IDAHO ENGINEERING LABORATORY PROPOSED PLANS

PUBLIC MEETING and COMMENT SESSION

May 17, 1995

Boise, Idaho

PRESENTATION NO. 1

Stationary Low-Power Reactor-1 and Boiling Water Reactor Experiment-I Burial Site Investigations and Track 1's

SPEAKERS:

Alan Jines, DOE Idaho
Jean Holdren, Lockheed Martin Idaho

PRESENTATION NO. 2

Central Facilities Area Landfills I, II and III and Track 1's

SPEAKERS:

Alan Dudziak, DOE Idaho
Steve McCormick, Lockheed Martin Idaho

AGENCY REPRESENTATIVES:

Jean Underwood, Shawn Rosenberger - Idaho Division of Environmental Quality

Howard Orlean - Environmental Protection Agency Region 10 Office, Seattle, Washington

MODERATOR

Reuel Smith

I N D E X

MR. SMITH: We appreciate you being here tonight. We will make a transcript of this meeting and it will be available. So if you're aware of other folks, we'll have these transcripts and the information in the repository so the people can see what was presented and what the comments are.

One of the things that I did want to bring up tonight was that the Community Relationship Plan has been issued, so it's available to the public now. And a lot of this has taken about two years to update. There was a Focus Group meeting that Beatrice participated in. We had ten other key stakeholders that attended a Focus Group to help review this document and the question then was: "Did we incorporate in this document what you've been telling us for the past couple years?" So it was a productive effort. And this one will be used for the next couple years. And it will be updated.

For instance, we just talked informally about how to improve our outreach to

the general public. The mechanisms that are in here are based on the past couple of years. If it isn't working today, then we need to change that. Then this is the living document and we'll also change it and update it and make it more contemporary to be effective.

I might mention, about a week ago a notice like this was sent out, and this was done in response to public comment. Citizens were saying sometimes we lose information in a twelve-page report, but can you send something that we can put on our refrigerator, so that was the purpose of this card. We may have to explore other ways of sending that out. This went to approximately 7,500 people across the state.

Tonight we have four ways that you can comment on this, on the proposed plans. First of all, in the documents, the proposed plans themselves, there is a comment form on the back. It's a business reply form, so you can just send that in. If you would like to turn it in tonight or mail it back in, we'll receive that. Another way is that we have a hand-held recorder that we have available in the back of

the room if you'd like to make a comment that way. Another way is that -- and this is in response to public comment, we have a 1-800 line now established, and people can call that information line and go right to a recorder and leave a message and it will be transcribed and it will be added to the official minutes of the activity that's being conducted by this project and it will be included in the Responsive Summary. And the fourth way is that the court reporter is here, and will be taking comments a little later after the presentations and after we have had a chance to have dialogue to talk about your concerns.

We're pleased that the agencies are with us here tonight, and I would like to introduce the project managers. For the first presentation on the Stationary Low-Power Reactor and the Boiling Water Reactor Experiment Investigation is Alan Jines from the Department of Energy and Jean Holdren from Lockheed Martin Idaho, and the State counterpart for this project is Jean Underwood with the Division of Environmental Quality here in Boise. And the EPA representative here tonight is Howard Orlean

from Region 10 in Seattle.

So with that, Jean, would you like to start?

MS. UNDERWOOD: Good evening. I'm the State's waste administrative manager for this project. Tonight information is going to be presented regarding the SL-1 and the Borax Reactor site. The State believes the Preferred Remedial Alternative identified in this plan for the SL-1 and the Borax Reactor site is the best approach, as is the proposed No Further Action for the ten Track 1 sites.

However, I'd like to emphasize that any comments that you make this evening or through this public comment period, any comments will be used by agencies to arrive at the final decision and the State does appreciate or encourage, your participation in this process. Thank you for coming tonight.

AUDIENCE MEMBER: What is SL-1 referring to?

MR. SMITH: That's the shortened acronym for Stationary Low-Power Reactor 1, and the other project is the Boiling Water Reactor Experiment 1.

AUDIENCE MEMBER: How do you break up between low power and medium and higher?

MR. SMITH: We'll get into that during the presentation. That is a valid question to ask.

And we'll be watching acronyms tonight. Just like that, if we hear an acronym, we'll stop and say, "What does that mean?" So I appreciate you raising that issue.

Howard?

MR. ORLEAN: My name is Howard Orlean. I'm with the Environmental Protection Agency in Seattle. I would like to say for the record, I'm not an attorney. I'm a Superfund site manager, geologist by training. And one of the reasons that I am here is to make sure that the Department of Energy and this format is complying and following the requirements of the National Contingency Plan.

To reiterate what Jean said, EPA has reviewed all the technical documents related to the SL-1 and the Borax Preferred Alternative and we concur and agree on the Preferred Alternative.

MR. SMITH: All right. Before we

get into the presentation, then, I would just like to make one footnote. We'll be talking about two types of investigations tonight in this first presentation. One investigation we call Track 1. The other investigation is a Remedial Investigation Feasibility Study. And quickly, when the three agencies were designing the Federal Facility Agreement and working out the working relationship, they designed a process that would simplify the types of investigations that we need to do. Hopefully they were going to eliminate unnecessary work.

They established this Track 1 process as a document review, and if reviewing existing information revealed that no contamination was released to the environment, they could say that no further action is required. Or if this early investigation revealed that there were some releases, they could say we'd better do an interim action or we'd better do a longer term investigation, which in some cases could take two to three years. The interim action may take 18 months, something, maybe 12 months to 18 months.

They also had a process for a

Track 2. If they did a paper search and said, "It's not certain if this is a No Action site or not. We'd better learn more about this site," they will go out and send someone in the field to do some sampling activity to verify. And again, if nothing was found, the agencies could agree that that would be a No Further Action site or they could say these are the results of the sampling surveys, we'd better take some kind of an action. So there were still two or three options that the agencies could take based on what they learned from the Track 2 investigation.

So every one of these is a different level of intensity, different requirements. In addition to those investigations, the Department of Energy can undertake a removal action at any time. If they find something that is an imminent threat of a release to the environment or the workers or to the public, there are some procedures that they go through to designate a site spokesperson and to notify media and have a news release to tell people what is happening here, but they can implement that when it's deemed appropriate.

Following any type of investigation

results, then we get into a decision phase where we are tonight, where the agencies are discussing the results of these investigations and inviting the public to comment so they can determine a level of public acceptance of these or to determine if the public has ideas and suggestions that they might not have considered and are valid that may affect the Record of Decision.

Once this phase is completed, the agencies will make a decision and then spell out the type of action that will be taken. So these proposed plans both contain this type of investigation, the Remedial Investigation Feasibility Study and some Track 1's. The reason the Track 1's are in the proposed plans now is that we can bring both these investigations to closure in this decision phase.

So any questions? I don't know if that was very clear. You might see as we go through this presentation the difference in the level of detail that we get in these different types of investigations.

So Allen, with that, if you'd like

to begin the first presentation.

PRESENTATION BY DOE IDAHO

MR. JINES: Tonight I'll be discussing the burial grounds for two reactors. The first is the Stationary Low-Power Reactor, which is located here at INEL. The second is the Borax-1 reactor, which is located here. The Stationary Low-Power Reactor, which is actually -- this is a shot of the actual site. The reactor was built in the 1950s by the Army to study the feasibility of putting a reactor that could be shut down, moved to a remote Arctic location and then fired up to provide heat and power. And the Army chose the name Stationary Low-Power. That is the only significance that it has that I'm aware of.

In 1961 as a result of that accident during routine maintenance operation, it achieved a prompt nuclear reaction. This reaction resulted in a steam explosion, deaths of the three operators on duty, and it ruptured the containment vessel. After the reactor core -- after the fuel that remained in the reactor core was removed, the reactor building was

demolished and it was buried here. The reactor originally was located right here. And in this photograph that's right here, this complex of buildings, this shows the road that comes out to this -- this is a current shot of the way the burial ground looks today.

AUDIENCE MEMBER: What is the date on that larger picture?

MR. SMITH: If I remember correctly, it says in the early '80s, so that isn't a present-day picture. It has had some decommissioning and decontamination.

MR. JINES: Of the facilities.

MR. SMITH: Yes, of the facilities.

MR. JINES: That picture was taken at the burial ground. The sagebrush is a little higher is the only difference.

During the demolition activities, radionuclides were spread onto the ground around the original location in the reactor area. The sands and gravels that were contaminated were scraped up and were also buried in the burial ground. During the burial activities, there were some releases of radionuclides that fell into this surrounding area. The burial ground

itself consists of three excavations 4- to 500 feet long. It's a four-acre site.

This area, which is encompassed by these dotted lines, is about 37 acres. The Borax-1 was an experimental reactor built in 1953. In 1954 at the end of its design life, it was intentionally allowed to achieve what they called an excursion, a critical reaction that was uncontrolled. This resulted in a steam explosion which contaminated the building and the foundation and the land around the building.

AUDIENCE MEMBER: Excuse me, what year did you say that is?

MR. JINES: This is 1954.

This is a schematic, this is a fence around the burial ground and this is the foundation. After removing debris and hot particles that landed in the vicinity of the facility, a six-inch gravel layer was laid over the ground in order to inhibit the radiation that was coming up from the contaminated soils. This dotted line represents this gravel covered area. This is about two acres and this burial ground is about 1/5 of an acre.

On this photograph this is where

the building was and the burial ground is. The top of the building was pushed into the foundation and clean fill was placed over the foundation and bounded. And you can't see it here, but there is actually about a four to five foot mound of soil at this site.

Now, during this steam explosion, it was uranium-235 and other radionuclides that were scattered onto the ground. That was significant, so I want to highlight that.

AUDIENCE MEMBER: Excuse me, are you proposing a cleanup of that or are you going to monitor? I imagine that's in here somewhere.

MR. JINES: That's later on. I'm getting to that.

AUDIENCE MEMBER: Excuse me.

MR. JINES: No, that's all right.

We have three alternatives. Basically the Preferred Alternative would be to build a cap over the sites, and we have some more discussion on the contaminated soils that are on each site.

MR. SMITH: Could we also go back to his first question about the difference between the low power, medium power? If I

remember that.

MR. JINES: Did I cover that?

AUDIENCE MEMBER: I haven't heard anything on that yet.

MR. JINES: The Stationary Low-Power Reactors, there are several reactors that the Army built in the Auxiliary Reactor Area, which -- well, this is just part of it, and on this map it's all in this area around the SL-1. And the Army chose to name it the Stationary Low-Power Reactor. And the purpose of the reactor was they were looking to build something that they could take to a remote installation, an Arctic situation, that could provide heat and power and in a quick time they could shut it down and transport it to somewhere else. It was a small reactor and that was the design purpose.

AUDIENCE MEMBER: So it's mobile?

MR. JINES: It's kind of funny, they call it Stationary Low, and you think why didn't they call it Mobile Low? I don't know. Maybe because it wasn't on wheels.

MS. HOLDREN: The original reactor was called the Stationary Low-Power Reactor

because it was a prototype. The reactor that was built subsequently to that was called the ML-1, which was the low power reactor.

MR. SMITH: The other part of his question was: Is there a medium -- if there was a low, is there a medium and a high?

MR. JINES: No.

MR. SMITH: And your answer is no.

MR. JINES: There is no technical cutoff.

The Remedial Investigation focused on determining the contaminants that were in each burial ground and the risk that these contaminants pose to the human health and the environment. After examining the available records, the agencies decided that no sampling would take place. This decision was made because we had accurate records for the fuel loads that were in each of the reactors and because it's difficult to obtain useful sampling data from a burial ground.

Using the fuel loads and the known operating histories in computer models, we've estimated the contaminants that are located in each of the burial grounds. The most significant

difference between the two is that on the Borax site we do have considerably more uranium-235 on the ground than we do at the SL-1 site. This is significant because uranium-235 is a hazardous radionuclide and it has a very long half-life, whereas most of the other radionuclides decay away much sooner than a half-life. It expresses how long it takes for half of the radionuclides to decay away.

Jean Holdren is a primary author of the Remedial Investigation and the Risk Assessment and she is here to discuss her findings.

PRESENTATION BY LOCKHEED MARTIN IDAHO

MS. HOLDREN: Risk assessment examines the danger a person may encounter while working or living on a site. We perform what is known as a baseline risk assessment, meaning we look at the risk that might exist under the presumption that we performed no remediation.

An exposure scenario was a description of how a person can come in contact with a contaminant. Ten exposure scenarios were examined for each of these two sites representing

three time frames: today, 30 years in the future, and 100 years in the future.

For today's discussion, we chose one scenario from each of those time frames: a pond scenario, a resident living on the site 30 years in the future and a farmer living on the site 100 years from now. How a person may actually receive exposure to a contaminant is called an exposure pathway. Of all the exposure pathways possible, the ones that were considered acceptable or feasible under the conditions at these two sites were direct exposure to ionizing radiation and ingestion or inhalation of contamination. These exposures pathways were assessed for each of the scenarios at both sites.

The current occupational scenario represents a worker spending up to two weeks a year at the site performing site monitoring, fence maintenance and observations. The exposure pathways for this scenario include the exposure to ionizing radiation, ingestion of soil and inhalation of dust.

The scenario 30 years in the future represents a person building a home on the site,

living there for 30 years and being exposed to the contamination. Residential groundwater ingestion was added to the list of exposure pathways for this scenario. Note that for both the current occupational and the future residential scenario, we modeled the assumption that the person would be directly exposed to the waste. In reality the situation out there right now is there are two feet of the soil covered over both of these burial grounds.

A worker on either site today is protected by the shielding afforded by this soil cover and is also protected by very strict safety precautions at the site. However, for risk assessment purposes, we assume that this soil cover did not offer the shielding that is actually there. The scenario 100 years in the future models a subsistence farm living on the site for 30 years, raising crops and livestock and consuming what is produced. Ingestion of plants, meat and milk were added to the exposure pathway.

Exposure to ionizing radiation and soil ingestion were identified as the primary and secondary exposure pathways. This was

determined by comparing the estimated risk to the acceptable risk range. The Environmental Protection Agency has established risk guidelines to help us make remediation decisions and define excess cancer risk associated with the site. Each of us is already at risk for contracting cancer. In fact, about one out of every four of us will eventually suffer from some sort of cancer in our lifetime. But excess cancer risks are those over and above the standard risk of getting cancer.

The EPA has defined the acceptable excess cancer range from one in 10,000 to one in one million. The estimation of risk is used because estimates are not exact. When we say that the excess cancer risk is one in one million, we mean that there is a probability that one person out of a group of one million people could get cancer as a result of exposure to contamination at one of these burial grounds. This one person in one million would be in addition to the one in four already expected to get cancer for some other reason.

Excess risks were estimated for all scenarios and compared to this risk range. The

baseline risk assessment focused on cancer risks because the contaminants of these two sites are radionuclides. For radionuclides, the risk in getting cancer far outweigh the risk from the hazardous chemicals. Chemical toxicity was considered but not found to be a significant component of the total risk of either side.

Of all the exposure pathways assessed, exposure to ionizing radiation had the highest in all ten scenarios. Soil ingestion was identified as a secondary risk for some scenarios, but at much lower risk levels than the direct exposure pathway. There were no other exposure pathways with risks higher than EPA's acceptable range.

In particular, risk due to groundwater ingestion is not a driver at either site because the aquifer will not be significantly impacted by contaminants from either burial ground. In fact, a modeled estimate indicates a maximum excess risk at SL-1 due to groundwater ingestion right at the bottom of EPA's acceptable risk range of one in one million. At Borax-1 it's slightly higher than that at three in one million.

Cesium-137 and strontium-90 were identified as the current preliminary risk drivers. Uranium-235 is a component that grows in importance as time goes on as cesium and strontium decay away. Uranium is particularly significant in Borax-1, as Alan discussed earlier.

For the residents living on the site 30 years in the future in this scenario, if no remediation is performed at SL-1, then the total risk of cancer is about five in ten. This means that one out of every two people living on the site exposed to the contamination could get cancer as a result. Risks are somewhat less for the other scenarios, but still above acceptable risk range. Similarly if Borax-1 is not remediated, three out of 100 people living on the site and directly exposed to contamination could suffer from radiation-induced cancer. Total excess risks for the other scenarios were also unacceptably high.

Excuse me, I have that in the wrong place. I could tell by Howard's look. Thank you, Howard. Does that look better?

AUDIENCE MEMBER: Did you say 30?

MS. HOLDREN: Three in 100.

However these risks are decreasing in time. Cesium-137 is the primary risk driver and cesium-137 has a half-life, the time it takes for half of the radionuclides to get away, of only 30 years. Because of this short half-life, the risk from cesium-137 will decrease depreciably over the course of the next few hundred years. At SL-1 excess risk due to cesium-137 will enter EPA's acceptable risk range in about 400 years and continue to decrease thereafter.

Total excess risk will level off at about three in one million, 650 years from now. At Borax-1, the excess risk due to cesium-137 will enter the EPA's acceptable risk range in about 320 years. Prior to that time, however, excess risk will become dominated by the presence of uranium-235. Total excess risk will level off at just about the acceptable risk range of about two in 10,000 in about 320 years. And there it will remain due to the presence of the long-lived uranium-235.

As these figures indicate, remediation must be effective for a minimum of

400 years at SL-1 and 320 years at Borax in order to be effective in controlling risk from cesium-137.

Alan will now come back up and discuss with you the alternatives that were considered to remediate these sites.

MR. SMITH: Alan, for those that have just joined us, will you explain what SL-1 and Borax-1 stand for, please.

MR. JINES: Do you want me to give a brief synopsis of where we're at?

MR. SMITH: Yes, I think that would be good.

MR. JINES: The SL-1 -- were're talking about burial sites for two reactors tonight. There is the SL-1 reactor site and the Borax-1 reactor site. The SL-1 was a reactor that exploded accidentally and was subsequently buried here, and the Borax was intentionally destroyed and buried here. Basically where we are at now is looking at what are the alternatives to remediate the risk that Jean just discussed.

If you have any questions, just feel free to ask.

A feasibility study is conducted to explore the range of options that are available to remediate a site. In this case we performed what is called a Focus Feasibility Study. In a Focus Feasibility Study, you only look at alternatives that have been selected as the final remedial action for similar sites. The advantage of a Focus Feasibility Study is it streamlines your investigation, it helps reduce costs and it speeds up the time so we can get to where we are today and be ready to remediate much sooner.

AUDIENCE MEMBER: Will you explain that?

MR. JINES: In a normal feasibility study you explore the full range of options that are available that you can possibly do to the site. In this case we focused on the remediation alternative, in other words, those that had been selected at previous sites for similar contamination so buried, radiologically contaminated debris. So we only looked at options which had been picked before. Does that -- do you understand?

AUDIENCE MEMBER: Yes.

AUDIENCE MEMBER: The procedure that you did that was done to Borax-1, when was that done?

MR. JINES: 1954.

AUDIENCE MEMBER: That is obviously not something that's been done any further?

MR. JINES: No.

AUDIENCE MEMBER: How do they check the leachability of the contaminants there on these sites as far as the groundwater and that sort of thing? Do they have a tendency to actually cohere to other things, make them heavy as you drop them into the ground?

MR. JINES: Well, there were a number of fission products released as a result of the explosion and some of the fission products will percolate down through the soil, and others won't, others will bind to the soil.

In this case there were some fission products, which according to the computer models that were used to analyze the site did percolate down to the groundwater, actually by 1980 according to our model, but in our actual sampling results we haven't found any contamination. Our models are very concerned

that we go to the worst case scenario.

Let me back up. Those radionuclides that reach the aquifer, they weren't there in a high enough concentration to bring us into the unacceptable risk range that Jean was talking about. They were on the order of one in 10 million increased risk of cancer so....

AUDIENCE MEMBER: Can you check as far as the density from surface level to the water table on those as far as when the greatest numbers of those radionuclides actually get to the water table? I mean, you are saying that it's already happened. Are you pretty sure of that? Has there been core tests done where they can see where the concentrations are down to the soil levels?

MR. JINES: I understand your question -- I think I understand your question. If I get it wrong, let me know. What we did is a worst case analysis. We made conservative assumptions to create the worst scenario that we could come up with in our model.

If that model had indicated that we have an unacceptable risk going into the groundwater, then we would go to the next step

and perform more investigation to get better information such as core sampling or groundwater wells. We then say we have a risk, let's verify. In this case because even with our conservative assumption we came up with nothing, the worst case scenario there is not an unacceptable risk, we didn't do any further investigation.

AUDIENCE MEMBER: I see.

MR. JINES: Does that make sense?

AUDIENCE MEMBER: Yeah, it does.

AUDIENCE MEMBER: Were you taking some service samplings a meter or two or ten meters or so there on that?

MR. JINES: We haven't done that yet, but we're going to. I'm going to be discussing that a little bit more later. Let me try to answer your question. And if I don't, tell me that I blew it. Okay? Are there any more questions? I don't mean to cut anybody off.

Okay. That's what a Focus Feasibility Study is. We're just looking at alternatives that have been selected before.

So this leaves us with four alternatives that we evaluated with our

Feasibility Study, the first of which is No Action, and it's not that that one has been selected, but we're required by law to analyze the No Action alternative. The second is Institutional Controls. This consists of taking steps to prevent somebody from actually going out onto the burial ground and living there, so we prevent the direct exposure to the radiation by not allowing people to go out there. The third alternative is containment with a cap; and the fourth alternative is excavation and removal of the contaminated debris.

In order to select between these four alternatives, we compared them to these evaluation criteria. All except for this last one, which is public acceptance, we haven't made that evaluation. That's what we will be doing throughout the comment period based on your comments. When we perform this evaluation, Institutional Controls dropped out because it doesn't meet the test for long-term effectiveness. These radionuclides are going to pose a hazard for 320 to 400 years.

The three remaining alternatives we explored in further depth. The first is No

Action. In this situation the waste would be left in place, we would perform long-term environmental monitoring, which would include drilling, monitoring wells into the aquifer to confirm that no radionuclides have made it into the aquifer.

We have a cost for the SL-1 of $1.1 million and for the Borax-1 is $4.4 million. That cost is based on 30 years of monitoring and also the installation of the monitoring wells.

AUDIENCE MEMBER: Installation of monitoring what?

MR. JINES: Wells, I'm sorry.

AUDIENCE MEMBER: Sir, is that per year or for the 30 years?

MR. JINES: That's for the 30-year period. The second alternative is the Preferred Alternative and it's containment by capping, but in this alternative we would be constructing an engineered barrier which would consist of sand, gravel and cobble and it would be in layers.

The purpose of the barrier is to prevent direct exposure to the ionizing radiation. The sand layer inhibits insects and

the gravel layer inhibits small burrowing mammals and plant intrusion. And the large cobbled layers inhibit larger mammals such as marmots and coyotes and also what we call the inadvertent intruder, which is basically somebody who is just out prospecting, digging holes unaware that they are on a burial site. It would also inhibit contaminant migration by preventing wind and water erosion.

We would perform the same periodic monitoring. For the SL-1 we have a cost range of $3.8 to $8.8 million, and for the Borax-1 is $2.3 to $4.7 million. The reason we have a cost range is because of these contaminated soils that we discussed previously.

When we're working on the design of the cap, we'll perform monitoring and sampling of these contaminated soils that surround each of the burial grounds. If we find that these soils have a high enough level of radiation that they can't remain in place, then we will consolidate them under the cap. This will increase the size of the cap and also there is considerable effort in collecting up the surface of 37 acres of soil. So that would put us on

the upper end of the price range. If we can leave the soils in place and let them decay naturally, then we would be on the lower end of the price range. This situation is similar for the Borax site. We will be looking at this gravel covered area as outlined by the dotted line.

The third option that we've looked at is excavation and removal. Under this scenario we would construct a small building over each of the sites to prevent dust from getting out and blowing around. We would then use conventional excavation equipment to go in and excavate the equipment. We would haul it to the Radioactive Waste Management Complex, which is on site at the INEL, we would then backfill each of the sites with clean soil, reseed and we would have clean closures.

For the SL-1, the cost range is $68.9 to $200 million and for the Borax-1 is $8.4 to $20.5 million. And that cost range again reflects the final disposition of these contaminated soils, only in this case we would be collecting the soils and actually hauling them to the Radioactive Waste Management Complex

for reburial along with the other debris.

The advantages of the Preferred Alternative is that it reduces risks to levels that protect human health and the environment. The second primary benefit or advantage is that it protects workers and the public during the remediation alternative. This is important because this is a primary difference between the Capping Alternative and the Excavation and Removal Alternative. Under excavation and removal, there is a possibility of having some worker exposure.

It will inhibit the migration of the contaminants and it provides for an effective long-term barrier to prevent anybody from getting to the contaminants. There is one disbenefit to the protective cap. As we have discussed with the Borax-1 site, the risks never decline to two in 10,000. When we design something like a barrier, really any engineered device, you have to assume a design life. In the case of a cap, we would select a design life of 320 years for the Borax-1 and 400 years for the SL-1. If the cap does fail in 320 years, and the cap completely goes away and the

protective soil that is there on the site goes away, then anybody that chose to live on that site would be subject to an increased cancer risk of two in 10,000.

The Track 1 process is a process that the Department of Energy uses to access sites to determine if further action is going to be required or if further investigation is going to be required or if no further action is warranted.

In this case we have ten sites included in this proposed plan. Seven of them are located at the Power Burst Facility Area, and three of the sites are located at the Auxiliary Reactor Area, which is located adjacent to the SL-1. In fact, this photograph that we had up before, this is part of the Auxiliary Reactor Area. Each of these sites have been found to contain no or very low levels of contamination. Those that have contamination don't have enough to pose an unacceptable risk. It's for these reasons that the agencies have recommended that no further action be taken on any of these sites.

MR. SMITH: Thanks, Alan and Jean.

We want to give you an opportunity to ask questions for clarification. Was there anything in the presentation -- did we answer the questions that you asked? Now is the time. Let's go into that kind of dialogue if you like, or if there is something that kind of seems like it was left hanging, let us know and let's talk it through.

AUDIENCE MEMBER: I have a question on that method about putting different kinds of material over the top of the SL-1. Is that -- so that would actually also protect, what, any kind of a surface radiation exposure as well as protecting animals from getting into the material at the same time?

MR. JINES: Well, I didn't explain that well. I'm glad that you brought that up. First off, right now we have at least two feet of soil over the SL-1 burial ground. If you go out there with a meter, you won't find any more radiation coming out of that ground than you do any of the other ground out at the INEL background levels. So we don't really have a present day risk.

Our risk numbers are based on the

assumption that that two feet of top soil blows away, essentially. Now, the reason that prohibiting intrusion is important is because when an animal burrows, they bring soil back up. We're not concerned about the individual animal, we're concerned that they will bring hot particles up to the surface where a person can get exposed, that's why it's significant. And the same with the plants, their roots can transform radionuclides up into their foliage.

AUDIENCE MEMBER: Thank you.

MR. SMITH: Yes, Senator.

AUDIENCE MEMBER: You also do not include in there the root structure of the plants and the other facilities out there that absorb the water, the natural occurring rain and snowfall out there so that it doesn't leach out the bottom of these pits. If I remember right, some of the material that you sent to my home mentions also that you have done some extensive studies on the amount of water that goes on at these, so it's contained by the root structure of the plants that cover these particular pits out there too.

It looks like to me that you made a

pretty thorough job of assigning risk involved, certain things that cause the water. In other words, you have water standing on top of these pits and it will permeate through the root structure of the these plants and then it goes into the material and goes out the bottom of the pits. Well, the soil structure that you're talking about, you've also included to limit that by the amount of plants, the native plants to that desert area that would absorb this material.

And I disagree that you guys are concerned about the burrowing rodents and the other things, because if they do get in there and bring it to the surface, other animals eat these things and then you have a shredded area and I noticed some of your material addresses even those risks in that.

I think you guys have done a lot of other studies that you haven't told the people about. I have a real comfort level about what you people are doing. And I received the two big books that you people have that cover all the sites that DOE has within the other states and the other areas with that, and those were

pretty thorough studies. But I've got to tell you that you people have taken a greater interest in the remediation than your predecessor did in that specific area, and I think that you've done a far greater job of notifying the public as to what the acceptable risk levels are or would be if you get into that stuff.

I think you people ought to be congratulated for what you're trying to do. I have a problem with it, but I think you people are struggling as best you can with the data that you have and the technology that we have available to keep that thing in there, so I compliment you rather than come to flog you.

MR. JINES: I appreciate that.

MR. SMITH: Let me try to address some of the questions that you brought up. We have done a lot of research at the INEL, you're correct. Some of the research has involved -- and it's ongoing research, determining how much of the rainfall penetrates that plant layer and how much of that is actually transpired back up, that takes into account the rainfall that actually evaporates off the desert. And

transpiration is how much the plants actually suck up. And you're right, that water gets trapped in the root zone and brought back up, it's not available to go down into the debris that is buried in each of these locations, and we can take advantage of that. But it's important to understand that for our modeling we look for the worst case scenario. So we assumed that there was no vegetation whatsoever on the site and we assumed that there is no evaporation whatsoever. In fact, we modeled if all the rainfall completely penetrated the burial ground and goes down into it.

MS. UNDERWOOD: For those of you that came in a little later, I'm Jean Underwood. I'm with the State of Idaho. I'm the waste group manager for this project. We've had our hydrogeologist -- we were kind of concerned a little bit with that issue that you raised with the infiltration rate, how would that affect the modeling that was done thus far. And so what our hydrogeologist has done was a sensitivity analysis and did exactly what Alan was explaining that we're just assuming that 100 percent of that infiltration went down through

there. Also we looked at doubling and tripling the source trip concentrations for the sensitivity analysis. And basically we're showing that there was really no difference in the risk that was estimated under the other assumption.

AUDIENCE MEMBER: Again, I've recovered from that jolt. My thought -- what my thought was, that's why your model shows by the next 20 or 30 years, or whatever you reach, the material that does get into the aquifer system, but according to the tests that you have now shows none coming down. That is why you've underrated the natural activities that happen within that deterrent area.

MR. JINES: Absolutely. That is just one of them. There are other conservative assumptions built into the model that just make the worst case scenario. For example, travel time through the basalt layer, we assume is zero. We assume that the water falls into the tube that goes "shoo," and it only slows down when it gets to what we refer to as interbeds, which is soil between the different layers of basalt.

So there are a number of conservative assumptions. We're trying to get the worst case scenario. In this case, try as we might, we couldn't show that there was an unacceptable risk to the aquifer.

AUDIENCE MEMBER: Do you gentlemen plan to talk about the off-site monitoring team that goes off and checks these things to find out how much strontium-90 is in the lettuce leaves and the iodine and the other materials which is coming through the soil? Are you going to talk about the off site?

MR. JINES: I'm not really prepared to discuss that tonight, no.

MR. SMITH: The format that we would like to continue on here is continue to have dialogue back and forth, discuss some of the questions that you might have particularly in preparation of you preparing comments for the record. The court reporter that is with us tonight will record public comments verbatim. So after our dialogue here, we would like to invite any and all of you to make comments. You can give them verbally and we'll record those. We have comment sheets on the back of the

procedure plans that you can send in anytime during the comment period.

The comment period on this project does end on June 3rd. You can call the 1-800 number at the INEL. And we debated how to do this, but you'll get a recording and it says, "If you'd like to leave a recording on the two projects that have open comment period, press one." If you press one, it would say, "If you wish to comment on these specific projects, begin your comment..." and that type of thing. So you can do that. We have a hand-held recorder here tonight and you're welcome to give a comment into the record in that hand-held recorder. So there are a number of options open to you. But before we get to that point of comments, we would still like to continue questions and answers.

AUDIENCE MEMBER: As far as the cap, the containment cap, when you look at that containment cap and you foresee a cross section on the analysis of that and you've discussed it, sand, large boulders obviously on top, and you're getting smaller and smaller as you work down, are you seeing that as actually built upon

the -- at a higher elevation than the surrounding ground area?

MR. JINES: Well, let me address that. We're actually planning to put a foundation under each of the burial sites of about two feet of just regular soil so we'll have a level platform to work from, and we'll compact it so that we have a stable cap so as years go by we decrease substenance and we'll be putting water diversion measures into effect within the SL-1.

AUDIENCE MEMBER: Weep holes?

MR. JINES: Not weep holes. but the SL-1 -- you can't see in this photograph, this is actually a geographically depressed area. So what we'll do is we'll cut a channel through one of these bridges to make sure that the area drains so we don't get any ponding. The cap itself will be several feet thick.

The Borax-1 is actually on a gentle hill, so it's a little easier there. So we have natural draining at the Borax-1, but we don't envision weep holes in the cap. The cap will not be specifically constructed to decrease infiltration because we haven't found any threat

posed by infiltration.

AUDIENCE MEMBER: I was just thinking of the actual buildup of the mound type system and as to whether or not it would be stable enough to go through earthquakes, wind, erosion, water erosion. If you could stabilize it for a 400-year period of time and think that you could do so without a concrete structure entirely around it to hold it up, then the concrete is questionable as to whether or not it would stay in place for 400 years.

MR. JINES: We actually evaluated concrete and we ruled it out because of those concerns. We are confident that we can build a cap but whether or not it can withstand the worst earthquake that you can think of in your mind, I can't answer.

AUDIENCE MEMBER: If you were to build it above the ground to where the kinetic energy of it would want to roll it flat --

MR. JINES: No, it won't be anything like that. The SL-1 is a four-acre site, and we're looking at the cap that's a maximum of up to eight to ten feet thick.

AUDIENCE MEMBER: I see.

MR. JINES: It's really not going to have any overturning or anything like that, so the sides are sloped very gently.

AUDIENCE MEMBER: Putting these caps on, you wouldn't actually disturb the contaminants that are in the ground to date?

MR. JINES: That's correct.

AUDIENCE MEMBER: But you would take off part of that topsoil layer in order to excavate down to a point where the cap would actually start?

MR. JINES: It's possible we would break up the top layer of debris --

AUDIENCE MEMBER: Scarify it.

MR. JINES: That would be about it -- not debris, but vegetation.

AUDIENCE MEMBER: Vegetation. You're saying as far as the vegetation, transpiration that takes place, still you're saying there are very little radionuclides that the plant actually draws, and as far as the bonding that happens around the root system and brings it up and transpires through the plant, you say that it's minimum or are you saying that there is quite a bit there? Because what we're

talking about is bonding to water molecules; is that correct?

MR. JINES: I believe that's the mechanism. It's really on the edge of my understanding of how the plants actually draw contamination up. The plants do draw the contamination up, that is a concern. We've looked at it at the INEL in terms of the vegetation bringing contaminants to the surface and making them available, and the quantities that we've looked at to date, we haven't really found a risk, but it is a possible path.

AUDIENCE MEMBER: That's one of the reasons that this cap would inhibit that?

MR. JINES: It would be specifically designed to inhibit that.

AUDIENCE MEMBER: I see; that's good.

MR. JINES: Yeah. In fact, let me just go on because I love this topic. We have experiments going on at the INEL right now to determine the most effective barriers for ants and for small burrowing mammals and for plants. So we have on-site information that we're developing that we can use to design the cap.

MR. SMITH: Okay. We can go into the comment period if that's acceptable to everyone unless there is another question that you would like to ask?

Essentially what this consists of is an opportunity for you tonight to tell us what your feelings are about this proposed plan. There has been a discussion of three alternatives. We'll put that board back up with the three, and you're welcome to address your concerns with any of the three alternatives, to recommend other alternatives that you may be familiar with or you think will work here or combinations of any of these alternatives.

So at this time, then, let's take comments. We'd ask that you say your name and we need to have your address. We would like to send you a copy of the Record of Decision that proceeds out of these meetings, and if you'll speak fairly loudly, I think it will be heard up here in front of the room. And the agencies will respond to your comments in a document called a Responsiveness Summary which will be attached to this Record of Decision that comes out. So with that -- pardon me, I'm sorry, if

you'll spell your last name so we get that correctly for the record. Thank you, Alan.

With that, would any of you like to make a comment at this time with the court reporter?

Q/A AND PUBLIC COMMENT SESSION

AUDIENCE MEMBER: My name is Bruce Allen and I live in Ketchum, Idaho; P.O. Box 1992 in Ketchum. The zip code is 83340.

Looking at and having read this and having a pretty good grasp about the national sciences, having degrees in it, I think the Containment No. 2 would be in my opinion the Preferred Alternative in this situation.

I think that No Action is -- I think that that's -- we created this mess in our lifetime, we need to clean up this mess in our lifetime. I don't think we need to leave it for future generations. Plus I think that there is a good possibility that we could have airborne particulate activity with this thing as far as with wind erosion, and that is really what I'm mostly concerned about in this situation, in all of these sites, really, is the possibility of

having wind erosion take place.

I think that in any of these sites I would prefer that nothing that is contaminated is ever touched again and everything is left in place. If you're going to mount on top of it sufficient weight where the shaking of the earthquake -- I mean, there is a fault line that is running through this area -- you wouldn't worry about it sloughing off and creating even a larger problem than is already there. I think I'll indicate to whoever happens upon it in the future generations, it will indicate to them that this wouldn't be a proper place to put a foundation for a home or put a garden in. Whether we are able to communicate to those future generations or not, in 400 years Lord knows where we'll be as far as the human race, we all know that, so that's about all I have to say about that.

MR. SMITH: Thank you. Following this we'll take a break. If you would be interested in filling out a form, we have a box back here where you can turn that in or we have the hand-held recorder if you would like to use that option also. So pending any other comments,

we'll go ahead and close this comment period on the Stationary Low-Power Reactor and the Boiling Water Experiment Reactor. And we appreciate your patience with us tonight.

We'll take a five-minute break while we bring up the next presentation. This next presentation will be about the Central Facilities Area Landfills, another Remedial Investigation Feasibility Study, and we have some Track 1 sites in this one as well. So if you don't mind, we'll take that quick break and bring the new boards up.

AUDIENCE MEMBER: Actually the comment period won't end until June 30, will it?

MR. SMITH: There were two comment periods and they were purposely offset so if you had comments coming in, you wouldn't have to do them in a panic. There is about a week separation between the dates. This project that we just heard ends June 3rd. This next project ends May 26.

MR. ORLEAN: He said comment, but he meant meeting.

(A recess was taken.)

MR. SMITH: This is the second part

of the meeting tonight. It's another proposed plan. In the past we've -- there has been an issue about how many topics to have in one evening. And fairly early on, individuals expressed the concern of rather than having frequent meetings, the preference was not to have more than two topics, and we have been following that guideline pretty closely and try to group these presentations in the same evening. This one here is actually for, oh, kind of a review of an announcement that this investigation was starting in August of '93, so this one has been going on for some time. Citizens were aware of it during that same time frame, August '93 sometime.

We've had regular reports on the status of the investigation through the INEL Reporter, which is a newsletter that we send out every two months. If you're not on that mailing list, we have a sign-up sheet back here too. We would like to get that information to you.

But I would like to introduce the individuals that are associated with this project. From the Department of Energy we have Alan Dudziak, and Lockheed Martin Idaho, Steve

McCormick, and the State of Idaho representative on this project is Shawn Rosenberger, who is with the Division of Environmental Quality in the Idaho Falls office, and from EPA Region 10, Howard Orlean out of Seattle. Would you two care to make a statement and let them know your role and involvement in this project?

MR. ROSENBERGER: My name is Shawn Rosenberger. I'm the Waste Area Group project manager for the Central Facilities Area for the state. We have been involved in the investigation to review their sampling plans, their investigation, reports and feasibility studies and we are in concurrence with their Preferred Alternative that they present tonight.

Tonight we encourage you to comment and ask any questions that you may have, and keep in mind that this is a proposed plan, so if there are any concerns that you have tonight, we will consider those when we write the Record of Decision.

With that, I'll turn it over to Howard.

MR. ORLEAN: Again, I'm Howard Orlean from EPA. I thank you all for coming

tonight. Similarly to Shawn, we have reviewed all the technical documents related to the Central Facilities Area and we concur on the Preferred Alternative and Proposed Plan. Thank you.

MR. SMITH: Alan, go ahead.

PRESENTATION BY DOE IDAHO

MR. DUDZIAK: Good evening. I'm Alan Dudziak. I'm the DOE waste area manager, project manager for the Central Facilities Area, and I'm here tonight to share some information with you about Remedial Investigation that we did on the landfills and how we're proposing to remediate them. At the end I'll also be talking about several underground storage tank sites, all of which we recommend no further action on.

Beginning here I would like to point out some differences between this project or these sites and the ones that you heard about earlier this evening, the SL-1 and Borax-1. The primary difference is -- and this will be reflected in our Preferred Alternative -- that we do not have any clearly identified risks at these sites. The action is based on certainty

with what might be there and also we don't have the long-term radiological concerns that SL-1 and Borax have, and that will be reflected in a different type of cap that we're proposing.

To get oriented, you have seen this before, the location of the INEL, and these are the two projects that you heard about earlier, and this is the Central Facilities Area where the landfills are and most of the underground storage tank sites.

I would like to start with a little bit of background and history and orient you toward these sites here. This is the Central Facilities Area, an aerial picture looking south, and here is basically the CFA proper, and up to the northwest of it is where the landfills are. This is Landfill I, it's about eight acres which was operated from the 1950s until 1984, although most of the disposals were prior to the opening of Landfill II over here in 1972, which operated until 1982, and it's about 15 acres. Landfill III is about 12 acres. It's this outlined portion. It operated from 1982 until 1984.

So we have a total of about 35 acres. There is a section here that you can see that's

going to be using this diagram to describe the investigation that we performed on these landfills. Our investigation consists of looking at the most likely exposure pathways where a contaminant that is in the waste would likely migrate out of the waste and create an exposure. We looked at the collected samples from the existing soil covers from the air above the covers and also from groundwater wells in the vicinity of the landfill itself.

The results of the investigation shown here indicate the presence of these compounds and risk assessment. The risk assessment that we performed shows that these compounds do not pose a clear unacceptable risk.

Also, there is not a clear trend in the groundwater data that would lead us to believe that the landfills are a source of contamination to the aquifer itself such as is illustrated here. We also discovered that there is no hot spot in the landfills or an area in the waste that contains an area of intense contamination that we identified.

AUDIENCE MEMBER: Are you saying there is no decay that is happening there that

you can see?

MR. McCORMICK: No, there is decay.

AUDIENCE MEMBER: Are there natural gases that are being emitted from the decay?

MR. McCORMICK: We did detect low concentrations of low volatile organics coming off the landfill above the cover and in the cover, but not to an extent that it would create a health risk.

Our investigation consisted of looking, though, at the pathways where contamination would escape the waste. We did not look at the waste itself or try to sample that because that kind of sampling approach involves a degree of uncertainty. The best way I can think of to illustrate the uncertainty related to this is that most of you have been to a landfill at some time or another, you'll have people there disposing of their grass and weeds and trees, couches, televisions, whatever, containers that only they know what is in them, you know, and you'll have a bulldozer compacting the waste and covering it with soil. After a few years, you'll end up, the landfill will become full, a soil cover will be placed on it

and now you're faced with the task of how do we evaluate this landfill.

And the simple answer is you really can't cost effectively evaluate the waste after it's placed in the landfill because if you try to collect a sample here, how do you know that it's indicative of the rest of the waste? And if you collect a lot of samples, how do you know that a lot of samples are indicative of the rest of the waste? Some of the uncertainties that we discovered at these landfills, I've already discussed the representative nature of sampling data, collecting a sample. The disposal records that we do have are not specific as to the type of contaminants and the volumes of waste.

AUDIENCE MEMBER: Is that still the case? Is the garbage that's being dumped out there at this point, is that being monitored?

MR. McCORMICK: These landfills are closed.

AUDIENCE MEMBER: But there is still landfills that are being used out there; is that correct?

MR. McCORMICK: That's right.

AUDIENCE MEMBER: Are these new

landfills, are these being monitored as far as what is going into them at this point?

MR. McCORMICK: They are. In fact, a lot of the waste streams that used to go into this type of landfill have been diverted to other areas. And the ones that I know of only accept so-called industrial waste, concrete, steel, scrap metal, solid materials.

At any rate, you can see how uncertainty plays a role in this kind of decision-making process when we end up with a massive waste that is randomly distributed and unsorted. And in our evaluation, because of the uncertainty, the agencies felt it was important to evaluate alternatives for this site. And Alan will come back up and tell you about the alternatives that we did evaluate.

MR. DUDZIAK: So where do we go from here? Basically we have done an investigation, we have not found any clearly identified unacceptable risks; however, we have a lot of uncertainty because you can't really characterize a landfill. And because, as Steve mentioned, the general nature of the disposal records, especially in the earlier days, the

records were extremely general saying -- though it doesn't give details on exactly what went into them, in the more recent times we have better and better records.

But we are looking at, like, Landfill I goes back to the '50s. So basically the risk assessment does not show any clearly identified unacceptable risks. We have all this uncertainty we can't really characterize. And I think Steve alluded to this also, as we did the investigation we did not identify, like, any extraordinary risks from any particular contaminants, so we don't have reason to believe that there is any severe problem that would warrant a more severe action than what we're proposing.

So basically in order to minimize the potential risks, given the uncertainty that we have, we developed some remedial action objectives. And basically the objectives for our remedial action here are to prevent contact with the waste of the landfill contents, to protect the aquifer and to comply with all applicable or relevant and appropriate requirements. Because that is such a mouthful,

we'll refer to those as ARARs.

Basically what these are is the various laws and regulations which could affect a site such as this. And if an ARAR is applicable, that means that it applies to this site, this site is bound by law to comply with that requirement. It's relevant and appropriate. It means that it's basically a regulation or a law that we can look to for guidance on what types of measures would be appropriate for our site and we can select from those to determine the appropriate remedial action. And one place that we looked for ways to meet these objectives was in EPA's Presumptive Remedy Guidance for CERCLA landfills.

MR. SMITH: Al, would you define what CERCLA is?

MR. DUDZIAK: CERCLA is the Comprehensive Environmental Response and Liability Act, or Superfund is another term for it. We generally refer to it as CERCLA. I'm sorry for using that acronym. I apologize for using that before I defined it.

Basically the presumptive remedy is proven technologies for dealing -- that have

been used on landfills in the past and are recommended for sites such as these. Because of all the uncertainty with the landfill and the difficulty in really characterizing it, we have the Presumptive Remedy Guidance to look to on possible ways to remediate.

And we did find that remedial action of these landfills is consistent with EPA's Presumptive Remedy Guidance for CERCLA landfills.

Now, when we get to looking at a site like this, there is some general response actions that we can consider. One is the No Action Alternative or response action. And this one the law requires us to evaluate. Two others are Institutional Controls and Containment, and these are found in the Presumptive Remedy Guidance. Institutional Controls is basically putting up a fence or otherwise restricting access in order to keep people away from the sites, therefore mitigating the risk.

Containment would be something like a cap or an enhanced cover that would better contain the wastes in order to prevent exposure. In our particular case, containment will limit

exposure to the landfill waste as well as limit potential migration of contaminants away from them, notably to groundwater. As Steve showed you earlier, there is potential leachate that comes out of a landfill and one of the things that we're looking to do is minimize that potential by reducing infiltration.

Specific alternatives that we developed for these sites -- excuse me, I'm getting ahead of myself. From our general response action, we have to find alternatives and then evaluate them with respect to these evaluation criteria. Basically, we want alternatives that will protect human health and the environment, comply with ARARs and meet these others, as you can see up here.

Part of what we're here for tonight is the last one, and that is public and state acceptance, more specifically public acceptance. We want to share with you what we have found out and what we propose to do and get your feedback before we do make a final decision on it on how to deal with these sites.

For these sites, we looked at four specific alternatives. And all of these have

some common elements or assumptions. In all cases the waste would remain in place. The groundwater monitoring would be conducted for at least five and up to 30 years. And the way it's set up, there is a five-year review cycle. So we would do the monitoring for the first five years and then we would make a decision at that point about whether it was appropriate for it to continue.

They all assume DOE or its successor would control the site for these first 30 years. And in our cost estimates for all these alternatives, we've assumed the installation of one additional aquifer monitoring well, that whether or not that's actually needed will be determined when we develop a monitoring plan.

Let's see. All of these cost figures -- you see this issue came up earlier, these are all the current value of money to be spent over a 30-year period. It's not all next year and it's not that much per year.

The first alternative, again, this is the one that the law requires us to evaluate and it's the No Action Alternative. In our case its no action with monitoring. And under this

alternative, we assume no access restrictions beyond that initial 30-year period where DOE controls the site and keeps people away as needed.

The cost of this alternative is about $1 million and that is for the construction of a well if it needs to be done for the monitoring itself and for the various management associated with all of that.

Our second alternative is Institutional Controls with Monitoring. I touched on Institutional Controls earlier. Basically this would be -- and specifically in this case, fences would be constructed to restrict access to the site. The access restriction would go beyond the initial 30 years because we'd have a fence there. This would also include the monitoring. And the cost is about $1.9 million, of which about a half million is for the initial construction, et cetera, and $1.4 million roughly is for the ongoing monitoring and maintenance.

Alternative 3 is our Preferred Alternative. That is a uniformed containment with native soil cover. Basically this one,

soil cover, using the existing soil cover and additional dirt as needed. We would construct a soil cover to provide at least two feet of dirt over the wastes, and we would also provide leveling and grading to enhance control of run on and run-off in order to limit pooling which would cause migration. We would also have a specified permeability of that cover which would, again, limit infiltration of water and therefore limit the potential for migration of the waste down to the aquifer -- or of contaminants down to the aquifer, excuse me.

This alternative would implement a deed restriction on the land, which would basically be a warning to potential future users of the land that these wastes are there, and it would also restrict the land use as needed to reduce the risks.

This alternative would cost about $3.5 million, of which $2 million is for initial construction, et cetera, the cover and such, and $1.5 million for the ongoing monitoring and maintenance.

Alternative 4 is our Containment with a Single-Barrier Cover. Now, this one is

similar to Alternative 3 except that it adds this impermeable layer which would be either a clay layer or a geomembrane, and there are some differences associated with getting a good foundation for that layer and such. But basically the big difference that we have is this impermeable layer.

The idea here is to further reduce the chance of infiltration of water and the potential migration of contaminants. This would also include deed restrictions. The cost of this alternative is about $15 million, of which about 12 is for the initial construction, et cetera, and about 3 for ongoing monitoring and maintenance.

Now, this alternative has a higher cost for the ongoing monitoring maintenance because of additional measures required primarily for things like methane, which could tend to build up under this cover. This alternative also introduces a higher short-term risk because of the additional transportation and construction activities.

Okay. As I mentioned, our Preferred Alternative is Alternative 3. Basically,

what are the advantages of this alternative? In the proposed plan on page 14 -- I won't read it, but you can look at it later. It's a summary of the Preferred Alternatives that goes through some of the advantages of this one. And we have some listed here addressing the uncertainties that we have been talking about using a proven technology that presumptive remedy has been used on other landfills so it's a proven technology. It limits potential for migration of contaminants. It's protective of human health and the environment and it implements the monitoring plan to make sure it's working.

So basically in a nutshell, it provides protective protection and the best balance among those evaluation criteria given the regulatory environment in which we operate. The cost is somewhat reasonable. And basically, the No Action alternative we have to evaluate, but it's not really a viable one in this case.

Alternative 3 is preferred because Alternative 4 is a higher short-term risk and much higher cost and Alternative 2 doesn't meet the compliance with ARARs, which is a threshold

criteria, so it has to meet that one to be further evaluated.

That's all I have on the landfills. I also want to go over the underground storage tank sites, but if there are any burning questions, I'd be willing to take those now or we'll have the regular Q/A period in a minute.

AUDIENCE MEMBER: How many acres are you talking about here?

MR. DUDZIAK: Thirty-five.

AUDIENCE MEMBER: With the initial -- with the first landfill, is there any history whatsoever of what was put in that landfill? I mean, people that might have worked at the INEL at that period of time that were working on heavy equipment that might be able to give us some indications of what was placed in there?

MR. DUDZIAK: We do have some. Steve, do you want to --

MR. McCORMICK: We do have some indications of that.

AUDIENCE MEMBER: Were there petroleum distillates put in there?

MR. McCORMICK: Yes, there was.

AUDIENCE MEMBER: Any of the organic hydrocarbons? I just wonder if it wouldn't be wise to do some testing in that area and just see what is in there. Because I know it's large, but I don't think that I would assume anything. The uncertainty of that particular dump site with the technology that they were using at that particular time, I think that you could find 50 gallon containers of petroleum distillate in there and many, many of them. And if you did, you would want to take them out and contain them a different way rather than leaving them in a hole in which the steel containers are probably almost at a point now, you know, of probably leaking into the aquifer as we speak.

And we all know what kind of compounds go into the soil, which there is nothing that is going to grow over the top of it. After just a few years, it's going to be contaminated -- the two feet of soil that you put on top of it, it's going to leach right up to the top. And then you're just going to have a huge mess. I really think it's worth looking into that, I mean, actually digging into that

hole and just seeing -- I mean, how long would it take you to take a backhoe out there, a backhoe operator, and dig five or six holes and see if you do discover, and if you don't, what is it? It's a couple days work, you know.

MR. McCORMICK: Can I show you the picture here real quick? The way that's typically used to discover those kinds of spots is to go in a surface cover and collect soil gas samples. If you have something under there that's significant, it will show up.

AUDIENCE MEMBER: You're getting hydrobenzene, which is a volatile gas which is being given off by petroleum distillates. You're getting some measure of them. I mean, you listed those.

MR. McCORMICK: It's typically spread out across the landfills.

AUDIENCE MEMBER: But at the same time it would diffuse too.

MR. McCORMICK: That's true.

AUDIENCE MEMBER: If it was ten feet under ground, it's going to diffuse to where it's not going to look like it's coming from any one point of origin, it's going to look

like it's coming from everywhere.

Once again, I think it's worth taking someone in there with a backhoe and digging -- especially where they first originally started these landfills. I mean, the first landfill site, how long would it take? It would take no time at all, and then you would have to reevaluate what you want to do there. I think the other two landfill sites, I think you have enough information with the people that have been around for this period of time.

It's just a suggestion, but it seems to me that it would be worth looking into, especially for 50 gallon barrels of petroleum distillate. And you wouldn't want to leave them in the ground. We know that all they are going to do is seep into the aquifer. We know that. So that is just my opinion.

MR. DUDZIAK: Thanks for the suggestions.

MR. SMITH: Just to make a point too, that's a great comment for the record when we come back to the comment period, and you could suggest that.

AUDIENCE MEMBER: I was wondering

if it had been done in their testing because they saw the gases coming out, so I was wondering if they had actually done something?

MR. McCORMICK: What we did do for Landfill II over there, we did know that what is called waste oil sludge was not even in drums, it was just put out on the soil in areas. We didn't know exactly where, and we did drill into the landfill in seven locations to go to the bottom to try to determine not specifically what you're talking about, but try to determine if there was leaching of contaminants out the bottom of the landfill. But, again, you come back to this issue of, well, seven locations out of --

AUDIENCE MEMBER: What is your conclusion on that drilling?

MR. McCORMICK: Well, what we concluded is there is really no leachate in those seven locations. They were chosen as low spots.

AUDIENCE MEMBER: Those were in Landfill II?

MR. McCORMICK: In Landfill II simply because we knew there was sludge disposed

of there.

AUDIENCE MEMBER: In order to put ground cover back on there, would you have to scarify that contaminated soil in order to get plant life to grow there again, is that what you're considering? I mean, you have to do something if it's been thrown on top of the ground, I would think.

MR. McCORMICK: Well, I mean it was disposed of there, it was put in and then other waste on top of it, then cover, so the cover is pretty clean.

AUDIENCE MEMBER: I have a question. So there is some existing native soil cover on there now? It's been placed on there, but it's local soil on there?

MR. McCORMICK: Yeah, the existing cover is generally one to four feet thick.

AUDIENCE MEMBER: What you're proposing on No. 3 is just thickening that layer some more?

MR. McCORMICK: The reason we call it uniform is we want to make sure that we have at least two feet over the waste everywhere, because some places it's only a foot or so. So

what we would do is bring in additional soil as needed to provide at least two foot thickness and to provide the leveling and grading in order to insure good runoff.

MR. SMITH: I think there was one other point this gentleman asked about other INEL employees who might have been there. Any personal interviews?

MR. McCORMICK: Part of the investigation really was talking to equipment operators, people who were there. However, we talked to people who worked at Landfill II and some of them, some of the older ones were younger then but didn't really go back into the history here because the 1950s was a long time ago.

However, you know, we do have really limited records of interviews.

MR. DUDZIAK: That's where we get into one of the areas of disposal.

AUDIENCE MEMBER: Can I ask you why they decided to do the test sampling in II rather than I, when uncertainties in I were much greater than II?

MR. McCORMICK: Because that's

where we knew waste or sludge was disposed of primarily.

AUDIENCE MEMBER: But there are volatile compounds that are being sent, there are sensors that have picked up volatile compounds in that area I and II; is that right?

MR. McCORMICK: That is right. However, the total volume -- it says five acres for Landfill I, actually most of the waste is in three trenches in Landfill I that are on this northern part of the landfill right in here. And a good part of the center is rock and rubble and construction type wastes. So I'm trying to think back to what the thinking was during that investigation. I believe it was that there was a limited amount of waste there in Landfill I. There is a much greater amount of waste at Landfill II.

AUDIENCE MEMBER: But the waste oil sludges from the early 1950s to 1972 would be buried there.

MR. McCORMICK: In Landfill II.

Now, there could be some in Landfill I, I'm not saying there isn't.

AUDIENCE MEMBER: I'm saying

between 1950 and 1972, waste oil sludges would be buried in Landfill I, right?

MR. McCORMICK: The waste oil sludge that we know of is in Landfill II.

AUDIENCE MEMBER: But it wasn't open until 1972, and surely there were waste sludges buried before 1972. They would have been in I, right?

MR. McCORMICK: There could have been. What we also know about Landfill I is during that period of time and primarily most of the waste in Landfill I went in in 1950 to early 1970. There were a few disposals in 1984 of rock and so forth. But what we do know about the practice of Landfill I is that they practiced open burning. They would take trash and if they were solvents or oil, they would pile them out in a trench and light it at the end of the day. They also had an incinerator that was located right there and there was ash, they would dispose of the ash into those trenches. So a lot of the waste was burned.

AUDIENCE MEMBER: Is there a process by which if you found a large amount of contaminants in the soil that you could actually

take and refire that soil or take the volatile compounds out of it if you were to find that in area I? Is there an incineration process?

MR. McCORMICK: I presume there is. I mean, I'm not really familiar.

AUDIENCE MEMBER: I think it is. I think there is a process by which you can refire the soil and remove all the volatile compounds.

MR. McCORMICK: We didn't evaluate that as an alternative.

AUDIENCE MEMBER: Are you talking about soil vapor action?

AUDIENCE MEMBER: It's basically the scree burning the soil.

AUDIENCE MEMBER: Do you know, was there a practice of periodically as the landfill was being built along of covering it up with dirt and mixing it up and putting some more in, and then putting dirt and stirring it up that way as it was being built up?

MR. McCORMICK: For Landfill I, we really don't know. We think they ran some dirt in as they put the waste in. For Landfill II, it started out as a gravel pit. They just

started in the low area, started piling waste in and every day or so, probably every week or every day, they would cover it with soil. And then as it filled up, they covered it.

MR. DUDZIAK: The more present practice is to cover it on a daily basis with soil, but I wouldn't speak with certainty that that was always done in the past.

MR. ROSENBERGER: I know a lot of Landfill I, they made the assumption that the waste that went into Landfill II also went into Landfill I. When you look at that Track 2 Summary Report, the Landfill I was basically investigated as a Track 2 originally, then rolled into this remedial investigation and they assume the same types, similar types of quantities of waste with Landfill I.

AUDIENCE MEMBER: But it is an assumption?

MR. ROSENBERGER: It is an assumption, exactly.

AUDIENCE MEMBER: That's the question I have. I mean, how far can you go with an assumption when there haven't been any core tests that have been done on that particular

site? I'm wary of that particular site. I am.

I'll cover that during the comment period.

MR. DUDZIAK: I would like to go ahead and finish up with No Further Action sites, then we can reopen for Q and A on all of it.

Basically, similar to what you heard on the previous presentation, in the case of the Central Facilities Area, all of the sites are underground storage tank sites, it can be like one or two tanks per site, and there are 19 of them. What I would like to go into is the Track 1 process, an overview of the sites and conclusions of the investigation, which is that no further action is appropriate for each of them.

These sites were evaluated under the Track 1 process, which Reuel and Alan Jines described earlier, so we'll go into that. So if there are any questions on that, you can ask later.

There are 19 sites, 16 of them have removal and sampling records. That is, basically we went out recently and removed the tanks and

either recycled them or whatever and selected samples in the bottom of the excavation to confirm that there was no residual contamination that would pose a risk. Two of them are believed to be removed. This is based on other information such as past records of where they were and not being able to find them. This is in the case of two 10,000 gallon tanks that were last used in 1950. We believe they were removed sometime between then when we looked for them with ground penetrating radar and metal detectors. The other one is based on an interview with an operator who removed it, but they didn't have any documentation.

One of them is still in use. This is the one that I mentioned is not actually at the Central Facilities Area proper. It's about five miles north at the fire department training area north of the Chemical Processing Plant and the Test Reactor Area.

This one is still in use for fire department training. Basically they have an area out there where they have burn pits, and they put some fuel in the pit and light it and practice putting it out. So this tank is still

in use for that purpose. We do an evaluation based on any past releases and it is determined that no further action is appropriate. Now, if the tank is still in use, it will have to be addressed under the appropriate regulations when it's taken out of service.

I just want to emphasize that our recommendations are based on potential past releases, and we did a tightness test on it to make sure it wasn't leaking and we didn't observe any contaminants around the fill ports and such. Further details are available on these in the proposed plan and in the administrative record.

Basically in conclusion, all of these sites were evaluated based on historical records, sampling investigation, et cetera, and revealed no releases that would pose an unacceptable risk, and we recommend that no further action be taken on these sites.

Q/A AND PUBLIC COMMENT SESSION

MR. SMITH: Okay. I appreciate the questions that came up and we want to go back into those. I would just like to mention that

the comment period on this project began April 26th and ends May 26th. Based on what the evaluation is of the body of public comment, agency review and so forth, a Record of Decision would be expected to be issued at some point in time in the future. For landfills, possibly by November. For the previous presentation that we saw, possibly January of '96. And heavy emphasis on -- this would be an expected outcome, but it may not necessarily be an outcome.

Are there any other questions about the Track 1 project that Alan just presented or the landfill in general?

AUDIENCE MEMBER: I didn't hear a time frame. What are you looking at for these plans to be implemented when you've gone through your process?

MR. DUDZIAK: Basically, as Reuel mentioned, we would expect the Record of Decision in November and then, let's see, getting into the planning stuff within a few years.

MR. ROSENBERGER: By law they have to be in the field within 15 months of ROD signature.

MR. SMITH: Excuse me. Will you explain what ROD means?

MR. ROSENBERGER: Record of Decision. It explains what type of action you are going to be taking in the field. And basically we need to be in the field showing some type of remedial activity within 15 months after that decision document has been signed.

AUDIENCE MEMBER: Who signs the decision document?

MR. ROSENBERGER: All the agencies, DOE and EPA and then the State.

AUDIENCE MEMBER: So it's sent around?

MR. ORLEAN: It's a tri-party agreement.

AUDIENCE MEMBER: That's not necessarily in November that it's signed?

MR. ORLEAN: Well, that's the target date, and the agencies that are working are trying to achieve that target date. You know, with the cleanup action or remedial action such as this, it shouldn't take very long after that to actually implement it.

AUDIENCE MEMBER: But the money is

available in the Superfund now? You're not going to have to wait for funding?

MR. DUDZIAK: At the Federal Facilities, we don't use Superfund money. It's Department of Energy money to pay for the cleanup.

AUDIENCE MEMBER: But there wouldn't be a problem there?

MR. DUDZIAK: It's in the budget. There is a lot of turmoil in that regard these days as you are probably aware of in the news, but it should be there.

AUDIENCE MEMBER: I'm shocked and amazed that you just said that. I just came back from Washington, D.C. and I didn't hear anybody out there saying --

COURT REPORTER: Excuse me, ma'am, could you please speak up. If you would like to finish what you said.

AUDIENCE MEMBER: I would rather go on.

I have a question about landfill. When you say it will -- I can't remember what you said exactly -- anyway it will inhibit contamination. What is the line I'm looking

for?

MR. DUDZIAK: Basically to limit infiltration.

AUDIENCE MEMBER: Yeah. In what ways? Are you talking about air mostly there?

MR. DUDZIAK: No, water. As it is now, you can kind of tell from looking at them that they are not perfectly level, and if we have heavy rains or snow melt, we can get pooling, and if the water sits in one place it will have a tendency to migrate in or to infiltrate into the ground. And there is a potential to drive contaminants when that happens.

So part of the action is to provide leveling and grading so we control the run on and run-off in order to avoid that kind of pooling that could cause that. It will also be compacting cover to reduce the permeability of the soil to water. So that again limits how much water will infiltrate and potentially cause contamination migration. Does that answer your question?

AUDIENCE MEMBER: Yes.

AUDIENCE MEMBER: I have a question.

The type of floor that you're going to use in order to replace for ground cover on this, is it indigenous to the area or is it something -- it's not a rye grass or anything like that?

MR. DUDZIAK: It will be a native grass.

AUDIENCE MEMBER: It's a native grass from this area. I mean native grass meaning -- is it a native grass or is it non-native grass?

MR. DUDZIAK: Do you recall, Steve?

MR. McCORMICK: I don't recall right offhand.

AUDIENCE MEMBER: I think that's --

MR. McCORMICK: That's typically what is used. I'm not for sure that any decision is made on that yet.

MR. DUDZIAK: But the expectation is that it's a native vegetation. I think crested wheat grass.

AUDIENCE MEMBER: The reason that I ask that, obviously, is that the maintenance of the area, I mean, if someday it's not maintained for some reason, whether it's because of the lack of funding, I would rather see a natural

cover on that rather than something that we can buy out of Costco, you know what I mean, as far as the super green stuff that you have to irrigate.

MR. DUDZIAK: No, we don't want to introduce something like that.

AUDIENCE MEMBER: Be careful of that cheat grass.

MR. SMITH: We have another question.

AUDIENCE MEMBER: The new landfill area, is it in close proximity to this?

MR. DUDZIAK: Yes. As I mentioned, this Landfill III extension was taken out of service in 1993. Down here there is an asbestos pit that is used at the landfill proper. This picture kind of cuts it off. Landfill extends a little further and adjacent to Landfill II is the current landfill. They've cut off a couple waste streams so that it's not getting -- I don't know -- basically, they did an evaluation when they shifted operations from here. And I'm not directly involved in this, so I hope I get this right. My understanding is that they have taken a dumpster at EBR-1 that they now have the state emptying when they empty the one at the

rest area so that we don't have this uncontrolled waste stream. That was a place where we could get household wastes which could potentially have things that we wouldn't expect.

MR. SMITH: Will you explain what EBR is?

MR. DUDZIAK: I'm sorry. It's Experimental Breeder Reactor No. 1, and it's a tourist site now. There is a dumpster that is open to the public. So anybody could dump something in there. In order to avoid getting unknown things into the landfills on site, they have made other arrangements for that waste.

So based on the existing landfill -- and again to my understanding is industrial waste only. Does that answer your question?

Anything else?

MR. SMITH: Okay. Thank you. We would like to invite you then to consider comments on this proposed plan. Whether you're commenting on -- I'll put these back up -- the alternatives that have been identified in the proposed plan or a combination of these alternatives and a combination of these alternatives with your ideas and suggestions.

AUDIENCE MEMBER: I have a question. On No. 3, is that going to include a fence?

MR. DUDZIAK: Probably not. It would be basically putting signs to warn people what was there. But with the additional cover work, a fence would probably not be necessary.

AUDIENCE MEMBER: I have a question too. On No. 3, does that include -- the soil that is placed on the surface, is that topsoil or is it subsurface soil? I mean, are you going to scarify an area that is around there with enough topsoil to cover that area with, you know, with something that's habitat for a local grass species?

MR. DUDZIAK: The additional soil would be from, in or around the INEL, we expect, and their various sources on sites that we can get that.

AUDIENCE MEMBER: And your minimum depth of soil would be what?

MR. DUDZIAK: It would be two feet on top of the waste.

AUDIENCE MEMBER: Two feet. And your minimum depth of actual topsoil, that would

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AUDIENCE MEMBER: Two feet. And your minimum depth of actual topsoil, that would

be -- what do you think that might be? I mean, I'm sure you're not going to use two feet of topsoil over 35 acres. I wouldn't suppose that you would probably want to do that. I mean, you're talking a lot of --

MR. DUDZIAK: The estimate for the additional volume of soil is 55,000 cubic yards as I recall.

AUDIENCE MEMBER: Yeah, that's about what I figured it.

MR. McCORMICK: I don't think they have set out how much of that will be topsoil.

AUDIENCE MEMBER: I think that we need to get that kind of clear.

MR. DUDZIAK: That would be a good thing to mention in the comment to make sure it's addressed.

MR. SMITH: Maybe another issue, is that typically identified in the Record of Decision or is that in the remedial?

MR. DUDZIAK: That would be in the design, I believe.

MR. SMITH: Okay. You might take a second, then, to explain what the remedial design is and how that fits into this. Not for

comment, but for informational purposes.

MR. McCORMICK: We have been talking Record of Decision. The purpose of public meetings is to gather input, agencies make a decision and the agencies sign a Record of Decision, that's a basic overall: we're going to do this alternative or that alternative, we've selected an alternative. And then you go to the remedial design phase where the engineers and geologists take over and they implement that and come up with specific design details. Does that answer the question?

MR. SMITH: Yes. Then that information is provided in the information repository so it is publicly available once the material has been prepared.

AUDIENCE MEMBER: During the remedial phase, as far as the design phase for the recovery, is this -- are these people that are the engineers involved in the design, are they actually going through public record too of this information or do they basically look at the area and they look at the scope of the project and they make their own determinations? Do they actually take public comment or look at

the public comment concerning this?

MR. McCORMICK: Public comments will be in the ROD, Record of Decision, that information -- well, these guys are going to be the ones looking at -- overseeing the remedial design.

MR. ORLEAN: The Record of Decision will lay out certain criteria for the design. Okay. We want to make sure that the cover will be uniform. We want to make sure that it's two feet across. We want to make sure that the grading will be in place, those kinds of things. Those kinds of generic things will be in the Record of Decision, and also the estimated costs.

Now, the people that come in to design, the engineers and geologists, of course, the final Record of Decision will take into account your comments. Okay. So the engineers and geologists that come in to do the design will then have to make sure that the design conforms to the requirement in the Record of Decision, so that's it.

AUDIENCE MEMBER: I was wanting to know is it possible to have something like a 2.5

that would be cost effective or payable, to have something in between like a 2.5 where you could actually use your technical radar equipment and sweep that area to determine the various depths and thicknesses and then lay out kind of like a jigsaw puzzle and go into those areas to meet your two foot?

You say you actually want to round cap it?

MR. DUDZIAK: What you are saying is basically what Alternative 3 does. We have existing information about the levels of the thicknesses and such, and that is how they came up with that estimate of 55,000 yards of additional soil in order to get at least two feet and provide the leveling and grading.

MR. SMITH: Good. Well, thanks for explaining that. I think oftentimes we don't talk about what comes after the Record of Decision and that may be a mystery.

Back to this project, we would like to enter into the formal comment portion of the meeting then and invite you to make a comment for the record. And again, there are three or four ways to do that.

Would any of you like to make a comment now with our court reporter?

AUDIENCE MEMBER: I like the Preferred Alternative -- I'm Bruce Allen -- I like the Preferred Alternative. I think that I'm not opposed to it in any way, shape or form. I think it's not much different than any other waste site as far as a dump site that would be in an urban area. I think that in my opinion that the Area 1, because of the uncertainty of what was put in there, I think that there needs to be a little more work done on that particular area in those trenches. And I think that we need to be a little more -- I would like to be a little more sure what is in there is not in 50 gallon barrels decaying as we speak and that we're just closing our eyes to it.

But I think I would like to congratulate everybody on this work that has been done all night. I think all the work that has been done is really exemplary. And once again, the Preferred Alternative No. 3, that's the only alternative I can see that makes sense.

The No. 4, I think that would just slow down the decay process and cause it -- and

maybe that would be a question as to whether or not we'd have an erosion problem sooner or later down the road and we would have -- for the problems 50 years from now, I think it's better to let it decay in a natural way. It needs some water. I think that we need to use the floor that's indigenous to the area in case this area is abandoned for budgetary reasons. And I think that we need to have guarantees as to the native soil at least four to six inches of topsoil.

Being a horticulturist, I know that it would take at least four inches to establish a decent plant growth on the top of it. I wouldn't ask that all two feet be topsoil, because that would be ludicrous, but the top four to six inches, I think we need to maintain that. That's all I want to say.

MR. SMITH: Thanks again. Any others that would like to make a comment tonight?

Okay. It's been quite an evening. And we genuinely appreciate the time that you folks have taken to be here tonight. We apologize for the difficulty in finding this building. We do have on the back of the agenda,

the meeting agenda, we have an evaluation form. If you have some ideas and suggestions on what we could do to make other individuals who might be interested in this kind of activity aware of what is going on, we'd be pleased to hear from you. Even though the Community Relations Plan is just out, it can be changed at any time to be current and we've got to keeping searching until we find something that works well.

AUDIENCE MEMBER: You are just planning the three meetings?

MR. SMITH: Yes. There are offers to groups and individuals if they would like to have a teleconference call or briefing or a speaker to come and give you a presentation. We're ready to meet with anyone that would like some interaction.

AUDIENCE MEMBER: You can travel to Ketchum to an organizational meeting?

MR. SMITH: Yes.

AUDIENCE MEMBER: And would you do that or would one of these gentlemen do that?

MR. SMITH: It depends on who is making the request, the nature of the request. If it's technically oriented, it would involve

one of the project managers. So we try to line up the resource to give you the best information.

AUDIENCE MEMBER: Twila Hornbeck. I might suggest that you try some kind of meeting in the Twin Falls area because of the huge amount of interest there is in that area about the groundwater. It might be good to have one more in that southern part of the state.

MR. SMITH: Okay. We have made telephone calls to key individuals who have been on our contact list over time, and in the past we have had informal briefings in the INEL regional offices in Twin Falls and Pocatello. The feedback that we're getting from the Twin Falls area residents is no more meetings. They are not asking for them. They are saying they are sick of meetings. They would rather have some other form. Incidentally, we met at the public library for an afternoon to say we don't want you to have to meet our schedule, come in when it's convenient for you. Although we did pick a day, and most of the feedback has been "still doing too much."

Thank you very much for being here.

I'm sure that the representatives will be here for a few more minutes if you would like to have informal conversations afterwards. Again, we appreciate your attendance tonight.

AUDIENCE MEMBER: I have a final question. What counties are INEL in?

MR. SMITH: If you could see this magic political boundary that comes in here, we have Bonneville County, we have part of Bingham County, Butte County, Clark and Jefferson. So what is that, five counties?

AUDIENCE MEMBER: Thank you.

MR. SMITH: Again, thank you very much. That will be our meeting for the night.

(The meeting concluded at 9:30 p.m.)

REPORTER'S CERTIFICATE

STATE OF IDAHO)
) ss.
County of Ada)

I, NANCY SCHWARTZ, a Notary Public in and for the State of Idaho, do hereby certify:

That said hearing was taken down by me in shorthand at the time and place therein named and thereafter reduced to computer type, and that the foregoing transcript contains a true and correct record of the said hearing, all done to the best of my skill and ability.

I further certify that I have no interest in the event of the action.

WITNESS my hand and seal this 2nd day of June, 1995.

Nancy Schwartz, Notary Public in and for the State of Idaho

My commission expires:
November 5, 1996